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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 301411WO/DJW/	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/IB2002/003871	International filing date (day/month/year) 09-08-2002	Priority date (day/month/year) -
International Patent Classification (IPC) or national classification and IPC H04M 15/00, H04L 29/00, H04L 12/14, H04Q 7/38		
Applicant Nokia Corporation et al		

<ol style="list-style-type: none"> <li>This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> <li>This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</li> <li>This report is also accompanied by ANNEXES, comprising:                     <ol style="list-style-type: none"> <li><input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:                             <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li><input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ol> </li> <li>This report contains indications relating to the following items:                     <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII Certain observations on the international application</td> </tr> </table> </li> </ol>		<input checked="" type="checkbox"/>	Box No. I Basis of the report	<input type="checkbox"/>	Box No. II Priority	<input type="checkbox"/>	Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI Certain documents cited	<input type="checkbox"/>	Box No. VII Certain defects in the international application	<input type="checkbox"/>	Box No. VIII Certain observations on the international application
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<input type="checkbox"/>	Box No. VIII Certain observations on the international application																

Date of submission of the demand 19-12-2003	Date of completion of this report 26-10-2004
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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/IB2002/003871

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (under Rules 12.3 and 23.1(b))
  - publication of the international application (under Rule 12.4)
  - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
 

the international application as originally filed/furnished  
 the description:  
 pages \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 pages \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 pages \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to the sequence listing (specify): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (specify): \_\_\_\_\_  
 any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	<u>1-26</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-26</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-26</u>	YES
	Claims	_____	NO

**2. Citations and explanations (Rule 70.7)****Documents cited in the International Search Report:**

- D1 WO 02052834 A1 (Nokia Corp.), 4 July 2002  
 D2 US 2001049656 A1 (J.Roslof et al), 6 December 2001  
 D3 WO 02052833 A2 (Nokia Corp.), 4 July 2002  
 D4 S.Zander:" Evaluation of Diameter Protocol against IPFIX Requirements", XP 002235932, retrieved from the Internet URL:<http://www.ietf.org>, pages 1-12, September 2002  
 D5 WO 0163883 A2 (Telecomm. Systems Inc), 30 August 2001

Document D1 discloses a method and a system enabling prepaid service in a packet-based communications system, in particular in an all-IP network, comprising one or more subscriber terminals. At least one subscriber database stores subscriber information including identification data of one or more server means, and the at least one server means stores prepaid accounts for subscribers. A request for connection is sent to a server which in response transmits the subscriber prepaid account related value corresponding to connection charge threshold value to the control unit, when the subscriber terminal initiates establishment of the connection with the network. (See page 1,line 32-page 3,line 14; abstract; fig.1,2).

Document D2 discloses a cost control method for telecommunication network mobile terminal using cost control function interpreted at mobile switching centre. Method consists in sending a cost control request from a network element (mobile switching centre or GPRS serving node or gateway GSN) which is an access point for the mobile terminal

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

to the GSM system, to a cost control function, determining the cost control result and interpreting it at the network element to carry out the required actions. The request and response messages are transported between the network element and cost control function using a lightweight transport mechanism. (See page 1, part 0007-page 2, part 0031).

Document D3 discloses a connection service charging for mobile communication system such as universal mobile telecommunication system (UMTS), global positioning search satellite (GPSR) system etc. involving computing connection charges for both connection support entities using respective tariffs and transmitting to charging entity, along with connection ID. Initiation of a connection between two connection support entities is detected based on which connection identification information is generated. Connection charges for both support entities are determined based on respective tariffs. Calculated charges along with identification information are transmitted to a charging entity. (See page 1, line 1-page 6, line 12; claims 1-26; abstract; fig.1-3).

Document D4 discloses an evaluation of the applicability of the Diameter protocol as an IPFIX protocol. The general Diameter architecture and its application to the communication between an IPFIX exporting process and an IPFIX collecting process are explained. The Diameter protocol is developed for the purpose of authentication, authorization and accounting. (See the whole document).

Document D5 discloses a prepaid short messaging service handling method for internet service providers involving querying account database to determine if account of addressed party has sufficient funds to pay for message transmission. The charge corresponding to transmission of a short message is calculated before transmission. An account database is queried to determine if an account corresponding to an addressed party of short message has sufficient funds to pay for transmission of the message based on which short message is transmitted. (See page 1, line 8-page 2, line 14; abstract; fig.1-4).

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

However, none of the cited documents discloses a system and a method for charging for services in an IP based communication system comprising establishing an accounting session between a network element and a charging function for the session, and initiating a change in the accounting session at the charging function.

In view of the cited documents such a method, an element and a system cannot be considered obvious to a person skilled in the art.

Therefore the invention claimed in claims 1 - 26 is novel and considered to involve an inventive step.

The invention is considered to be industrially applicable.